

Form PTO-1390  
(REV 11-98)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTORNEY'S DOCKET NUMBER  
310307.90134**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371**US. APPLICATION NO. (If known, see 37 CFR1.5)  
09/979,518INTERNATIONAL APPLICATION NO.  
PCT/US00/13960INTERNATIONAL FILING DATE  
19 May 2000 (19.05.00)PRIORITY DATE CLAIMED  
22 May 1999 (22.05.99)TITLE OF INVENTION REVERSE TRANSCRIPTION ACTIVITY FROM BACILLUS STEAROTHERMOPHILUS DNA POLYMERASE IN  
THE PRESENCE OF MAGNESIUMAPPLICANT(S) FOR DO/EO/US **SCHANKE, Judith E.T.**

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☐ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☒ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☐ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☐ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☐ has been transmitted by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US)
6. ☐ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☐ have been transmitted by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

**Items 11. to 16. below concern document(s) or information included:**

11. ☒ A Supplemental Information Disclosure Statement under 37 CFR 1.97 and 1.98 and Form 1449.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A **FIRST** preliminary amendment.  
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☐ Other items or information: Postcard Receipt

U.S. APPLICATION NO. (If known, see 37 C.F.R. 1.5)  
09/979,518

INTERNATIONAL APPLICATION NO.  
PCT/US00/13960

ATTORNEY'S DOCKET NUMBER  
310307.90134

17. ☐ The following fees are submitted:

**BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(5)):**

Neither international preliminary examination fee (37 CFR 1.482) nor  
international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International  
Search Report not prepared by the EPO or JPO ..... **\$1040.00**

International preliminary examination fee (37 CFR 1.482) not paid to USPTO  
but International Search Report prepared by the EPO or JPO ..... **\$890.00**

International preliminary examination fee (37 CFR 1.482) not paid to USPTO  
but international search fee (37 CFR 1.445(a)(2)) paid to USPTO ..... **\$740.00**

International preliminary examination fee paid to USPTO (37 CFR 1.482) but  
all claims did not satisfy provisions of PCT Article 33(1)-(4) ..... **\$710.00**

International preliminary examination fee paid to USPTO (37 CFR 1.482)  
and all claims satisfied provisions of PCT Article 33(1)-(4) ..... **\$100.00**

**ENTER APPROPRIATE BASIC FEE AMOUNT =**

**CALCULATIONS** PTO USE ONLY

Surcharge of **\$130.00** for furnishing the oath or declaration later than ☐ 20 ☐ 30  
months from the earliest claimed priority date (37 CFR 1.492(e)).

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE
Total claims	20 -20 =	0	X \$18.00
Independent claims	3 -3 =	0	X \$78.00

MULTIPLE DEPENDENT CLAIM(S) (if applicable) + \$260.00

**TOTAL OF ABOVE CALCULATIONS =**

☐ Applicant hererby claims small entity status. Reduction by 1/2 for filing by small entity.

**SUBTOTAL =**

Processing fee of **\$130.00** for furnishing the English translation later than ☐ 20 ☒ 30  
months from the earliest claimed priority date (37 CFR 1.429(f)). +

**TOTAL NATIONAL FEE =**

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be  
accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). **\$40.00** per property +

**TOTAL FEES ENCLOSED =**

Amount to be:  
refunded \$

Charged \$

a. ☐ A check in the amount of \$ 00 to cover the above fees is enclosed.

b. ☒ Please charge my Deposit Account No. 17-0055 in the amount of \$ 00 to cover the above fees. A duplicate copy of  
this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any  
overpayment to Deposit Account No. 17-0055. A duplicate copy of this sheet is enclosed.

**NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b))  
must be filed and granted to restore the application to pending status.**

SEND ALL CORRESPONDENCE TO:

Quarles & Brady LLP  
411 East Wisconsin Ave.  
Milwaukee, WI 53202-4497

SIGNATURE

Jean C. Baker

NAME

35,433

REGISTRATION NUMBER

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: SCHANKE, Judith

Group No.: UNKNOWN

Serial No.: 09/979,518

Examiner: Unknown

I.A. Filing Date: 05/19/00

For: REVERSE TRANSCRIPTION ACTIVITY FROM BACILLUS  
STEAROTHERMOPHILUS DNA POLYMERASE IN THE PRESENCE OF  
MAGNESIUM

Docket No.: 310307.90134

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**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT  
PURSUANT TO 37 CFR 1.97(d)**

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Commissioner for Patents  
Washington, D.C. 20231

Sir:

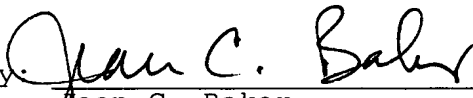
The Applicant of the above-identified patent application became aware of the enclosed documents which are being submitted in compliance with 37 CFR 1.97 and 1.98. The documents are listed on the enclosed form PTO-1449.

**Fees**

Please charge all applicable fees associated with the submittal of this Information Disclosure Statement to Deposit Account No. 17-0055. An original and a copy of this document are enclosed.

Respectfully submitted,

Dated: 14 May 2002

By:   
Jean C. Baker  
Registration No. 35,433

Quarles & Brady LLP  
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(414) 277-5000  
(414) 271-3552/fax

Form PTO-1449  
(Rev. 2-88)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY. Docket  
310307 134

APPLICATION NO.  
09/979,518

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

APPLICANT  
SCHANKE, Judith E.T.

FILING DATE  
15 Nov 2001

GROUP

## U.S. PATENT DOCUMENTS

EXAMINER'S INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	1	5,310,652	5/10/94	Gelfand et al.	435	6	
	2	5,561,058	10/1/96	Gelfand et al.	435	91.2	
	3	5,618,703	4/8/97	Gelfand et al.	435	91.2	
	4	5,641,864	6/24/97	Gelfand	530	350	
	5	5,693,517	12/2/97	Gelfand et al.	435	193	
	6	5,747,298	5/5/98	Hong et al.	435	91.1	
	7	5,817,465	10/6/98	Mallet et al.	436	6	
	8	5,834,253	11/10/98	Hong et al.	435	91.1	
	9	5,874,282	2/23/99	Riggs et al.	435	252.3	
	10	6,013,451	1/11/00	Wong et al.	435	6	

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	11	0 699 760	6/3/96	EP				
	12	0 712 927	5/22/96	EP				
	13	0 810 288	12/3/97	EP				
	14	0 834 569	4/8/98	EP				
	15	0 875 576	11/4/98	EP				
	16	0 921 196	6/9/99	EP				
	17	0 922 765	6/16/99	EP				
	18	92/03556	3/5/92	WO				
	19	96/10640	4/11/96	WO				
	20	98/14589	4/9/98	WO				
	21	98/44161	10/8/98	WO				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	22		Biochemicals for the Diagnostic Industry, 1999/2000 (Roche Molec. Biochemicals), pgs. 372-375
	23		Biochemicals Catalog, 1999, (Roche Molec. Biochemicals), pgs 50-51
	24		PanVera Catalog, 1998-1999 (PanVera Corporation), pgs. 3-6 and 3-7
	25		Epicentre Catalog, 1994 (Epicentre Technologies Corp.), pg. 1

EXAMINER

DATE CONSIDERED

\* EXAMINER: Initial if a citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449  
(Rev. 2-88)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY. DCK  
31030700134

APPLICATION NO.  
09/979,518

**INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT**

APPLICANT  
**SCHANKE, Judith E.T.**

FILING DATE  
**15 Nov 2001**

GROUP

*(Use several sheets if necessary)*

**U.S. PATENT DOCUMENTS**

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**FOREIGN PATENT DOCUMENTS**

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

26		DNA Polymerase from Mesophilic and Thermophilic Bacteria. III. Lack of Fidelity in Replication of Synthetic Polydeoxyribonucleotides by DNA Polymerase from Bacillus licheniformis and Bacillus stearothermophilus, Stenesch, J. and McGowan, G.R., Biochem Biophys Acta, 475(1):32-41 (1977)
27		Large Fragment of DNA Polymerase I from Bacillus stearothermophilus (Bst polymerase) is Stable at Ambient Temperature, Lu, YY, Ye, SY, and Hong, GF, Biotechniques, 11(4):464, 466 (1991)
28		Purification and Characterization of DNA Polymerases from Bacillus Species, Sellmann E., Schroder, KL, Knoblich, IM, and Westermann, Pl., J. Bacterial, 174(13):4350-4355 (1992)
29		Cloning and Complete Sequence of the DNA Polymerase-encoding gene (Bstpoll) and Characterization of the Klenow-like Fragment from Bacillus stearothermophilus, Phang, SM, Teo, CY, Lo, E., and Wong, VW, Gene 163(1):65-68 (1995)
30		Detecton of M. tuberculosis DNA Using Thermophilic Strand Displacement Amplification, Spargo, CA, Fraiser, MS, Van Cleve, M., Wright, DJ, Nycz, DM, Spears, PA and Walker, CT., Mol Cell Probes, 10(4):247-256 (1996)

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PATENT AND TRADEMARK OFFICE

ATTY. DCKET  
310307 0134

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## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

31		Construction of Single Amino Acid Substitution Mutants of Cloned Bacillus stearothermophilus DNA Polymerase I which lacks 5'-3' Exonuclease Activity, Riggs, MG, Tudor, S., Sivaram, M., and McDonough SH, Biochim Biophys Acta, 1307(2):178-186 (1996)
32		Thermostable Bst DNA Polymerase I Lacks a 3'-5' Proofreading Exonuclease Activity, Aliotta, JM., Pelletier, JJ., Ware, JL, Moran, LS, Benner, JS, and Kong, H., Genet Anal, 12(5-6):185-196 (1996)
33		Use of the Restriction Enzyme Aval and exo-Bst Polymerase in Strand Displacement Amplification, Miller, MA, Spears, PA, Pearson, RE, and Walker, GT, Biotechniques, 24(3):392-396 (1998)

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